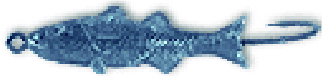


Towards EBFM

Trends, emerging issues
and data needs

Ecosystems Decision Tools Workshop
Key Largo, FL
Feb 16, 2005

Chad Demarest, NEFMC



Presentation Overview

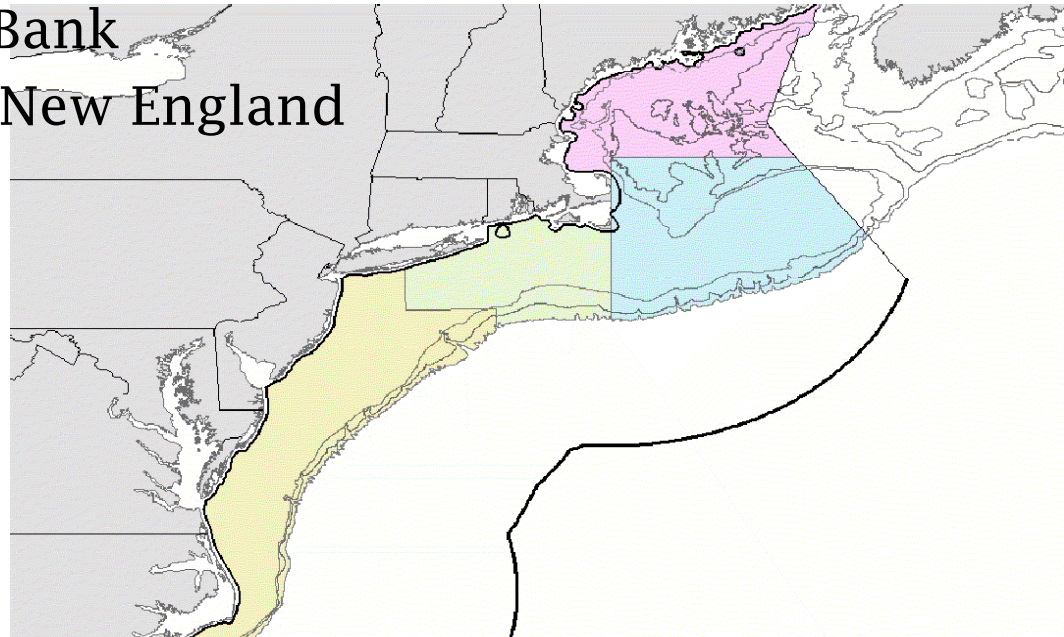
- **NEFMC: the basics**
- **Trends and predictions**
- **Emerging issues**
- **Data/information needs**



The basics

NEFMC

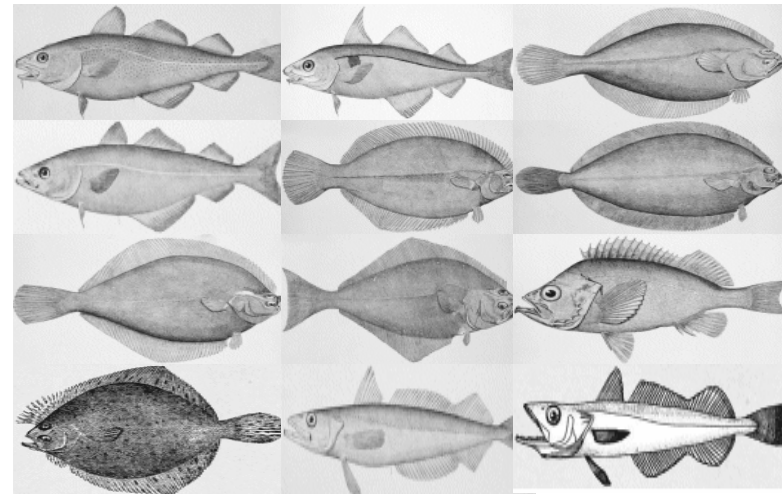
- One of eight US regional FMC's
- Federal waters (generally >3 nm's out to 200 nm's)
- Three management areas
 - Gulf of Maine
 - George's Bank
 - Southern New England



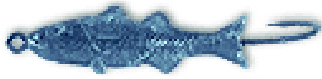


Our fish and plans

- 20 Species
- Seven Fishery Management Plans
 - Northeastern Multi-species (groundfish)
 - Small mesh
 - Large mesh
 - Atlantic Sea Scallops
 - Monkfish
 - Red Crab
 - Atlantic Herring
 - Skate Complex
 - Atlantic Salmon
 - Essential Fish Habitat



The basics



Other fisheries in our area

The basics

- MAFMC
 - Bluefish
 - Surf Clam/Ocean Quahog
 - Squid/Mackerel/Butterfish
 - Black Sea Bass/Scup/Summer Flounder
 - Dogfish*
- ASMFC
 - Northern Shrimp
 - Lobster
 - Striped Bass
- Other
 - Hagfish
 - Pelagics

NEW ENGLAND

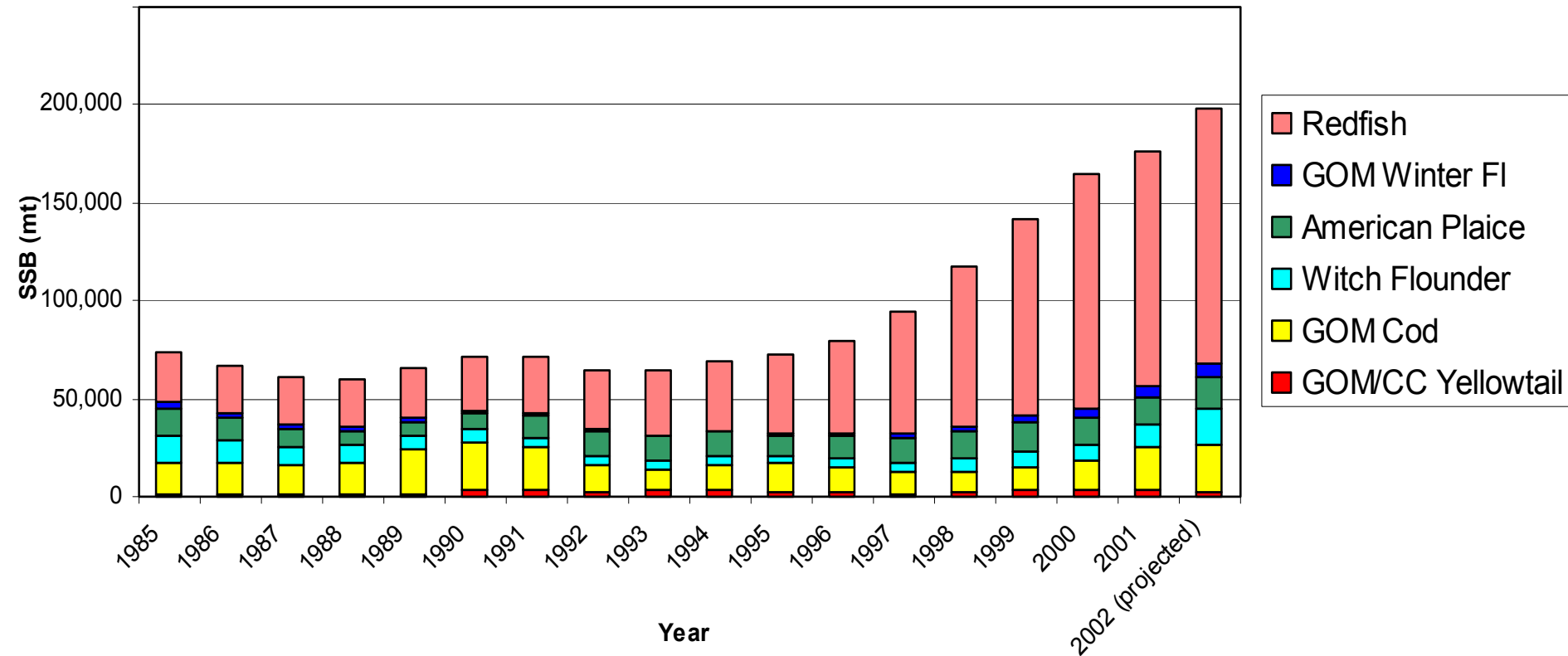


FISHERY MANAGEMENT COUNCIL



Trends

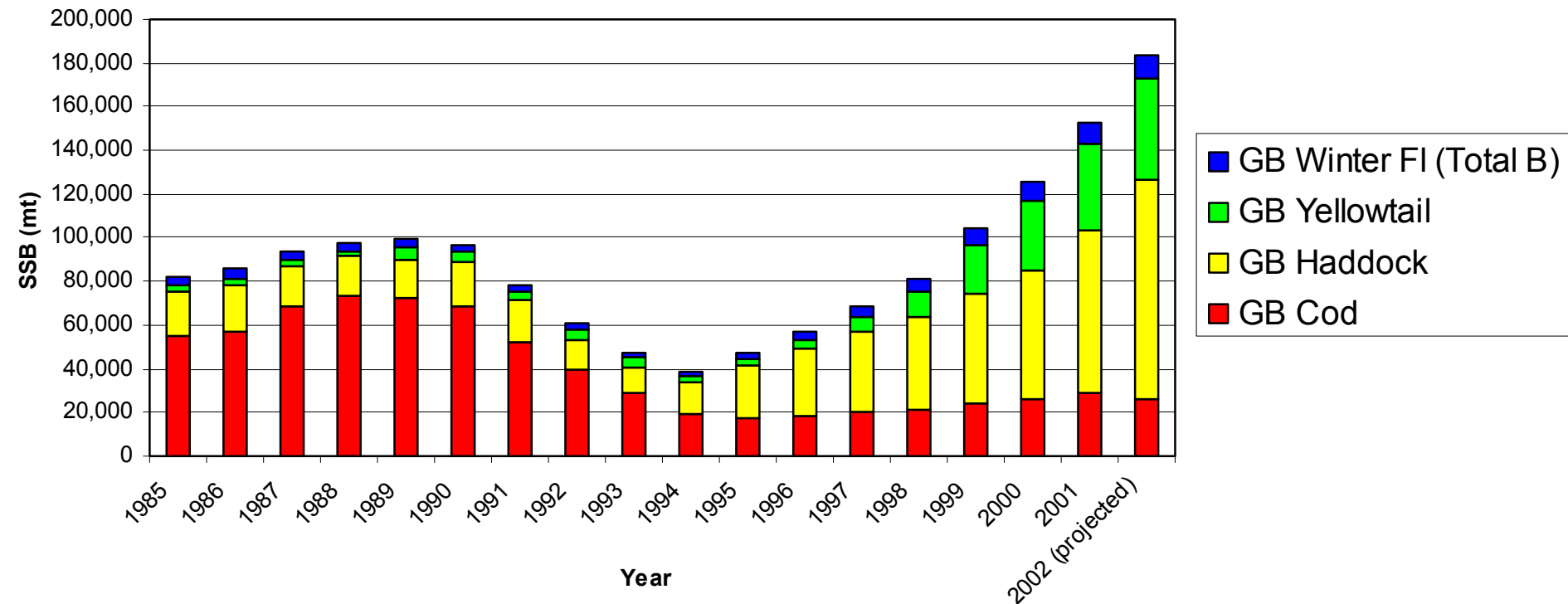
GOM groundfish stocks SSB



*2002 projections are from Groundfish PDT work for Amendment 13.

GB groundfish stocks SSB

SSB for 4 GB Groundfish Stocks, 1985-2002

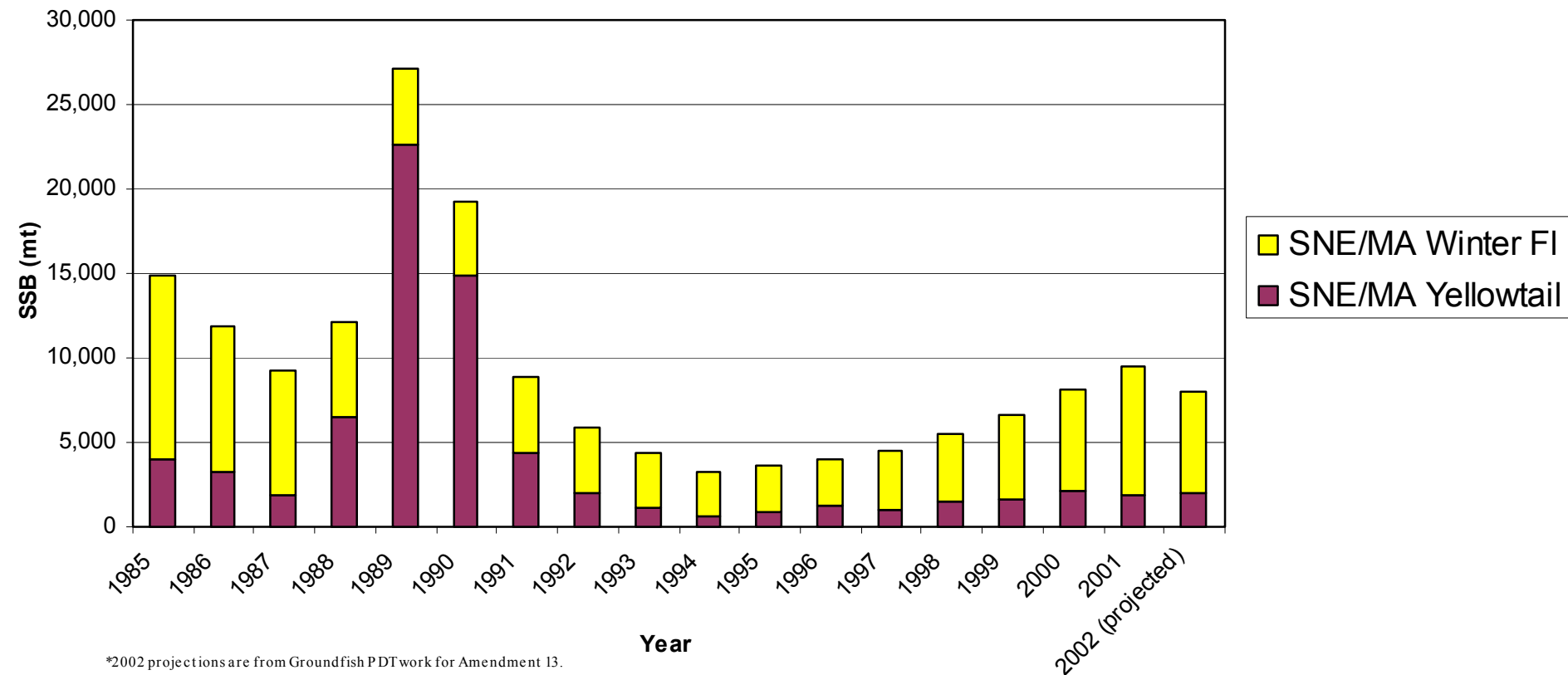


*2002 projections are from Groundfish PDT work for Amendment 13.

*2002 total B estimate for GB winter flounder from short-term projections in NMFS GARM Report (2002).

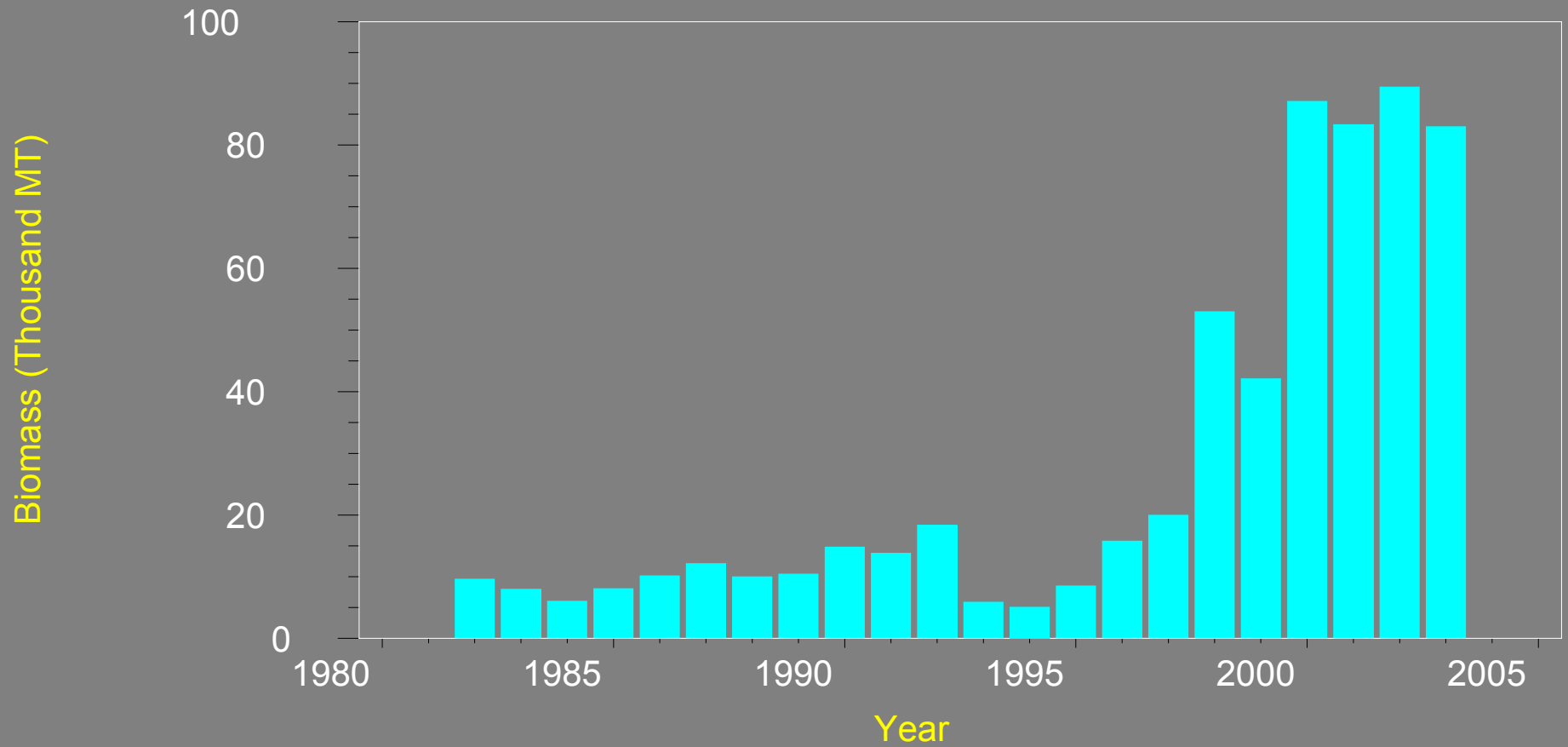
SNE groundfish stocks SSB

SSB of 2 Southern NE Groundfish Stocks, 1985-2002



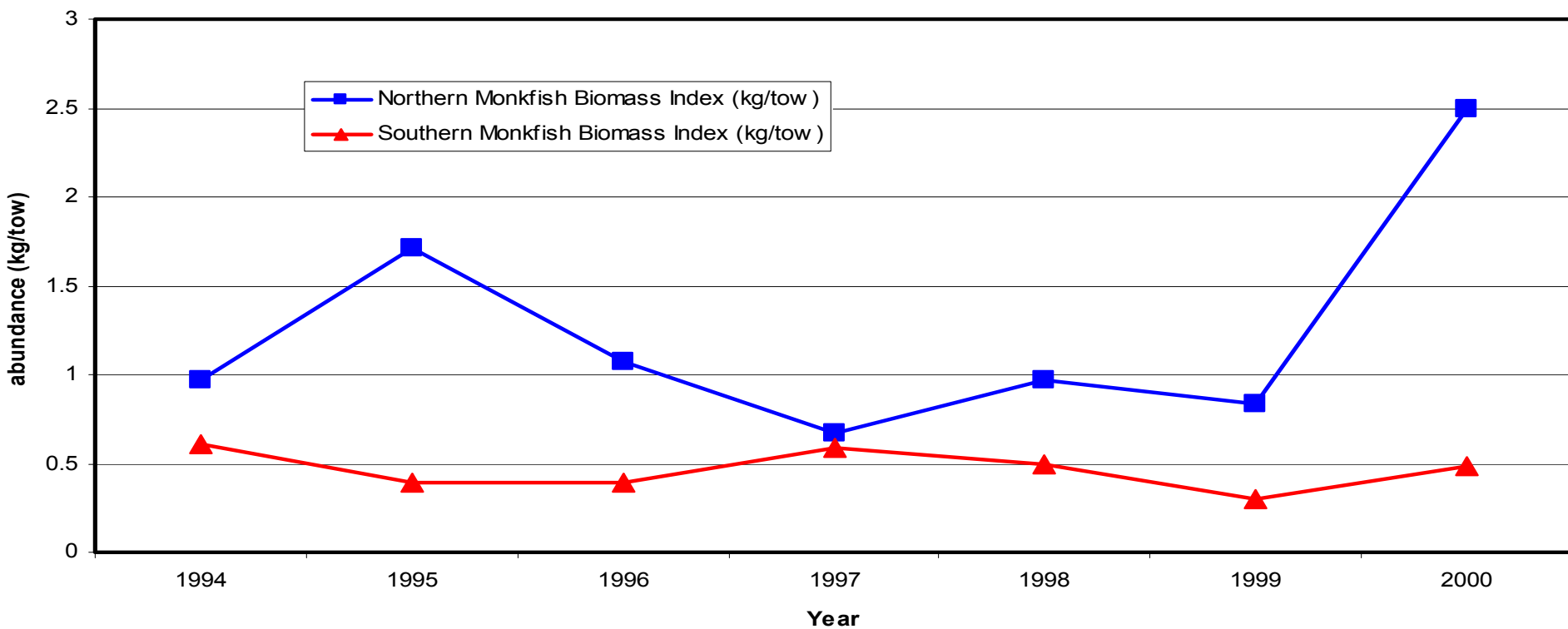
*2002 projections are from Groundfish PDT work for Amendment 13.

Atlantic Sea Scallop biomass



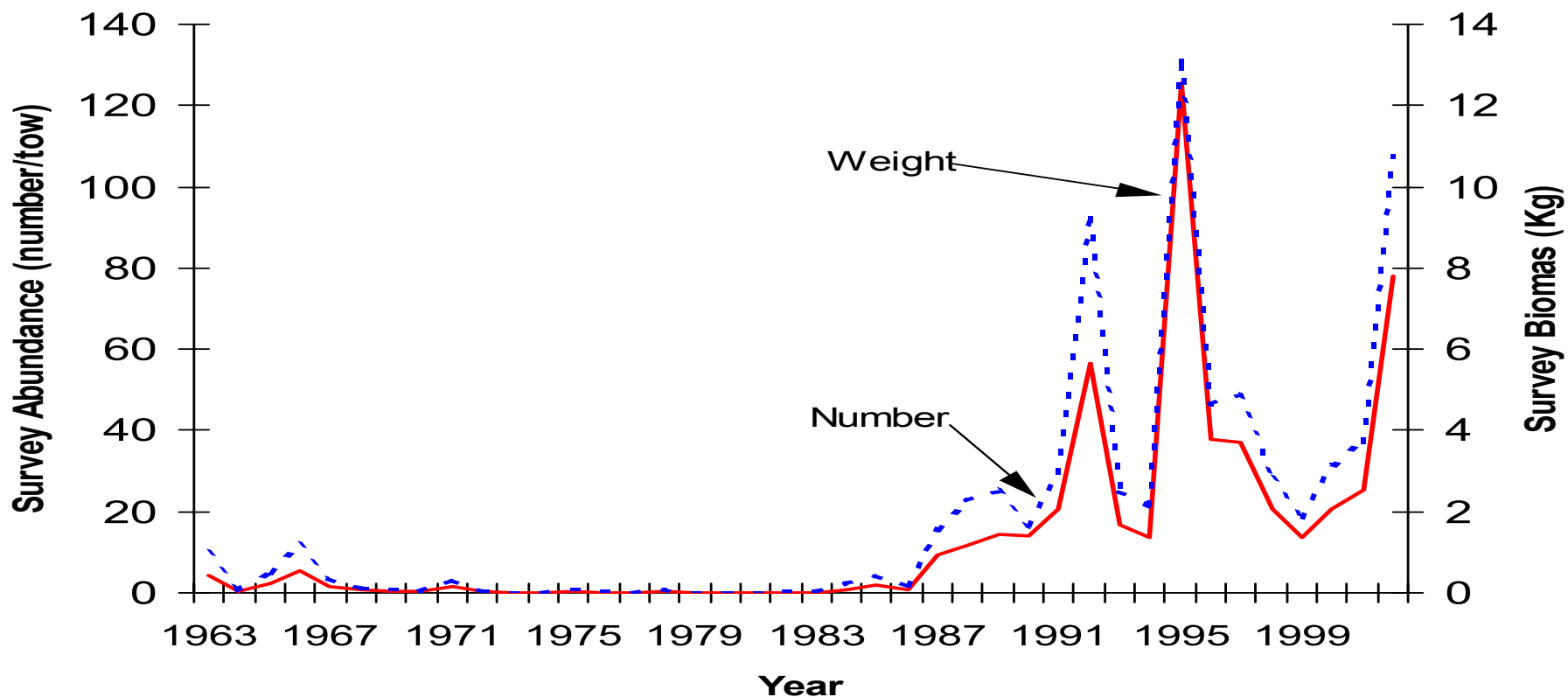
Monkfish biomass

Trends in Monkfish Biomass from the Autumn Trawl Survey



Atlantic Sea Herring abundance

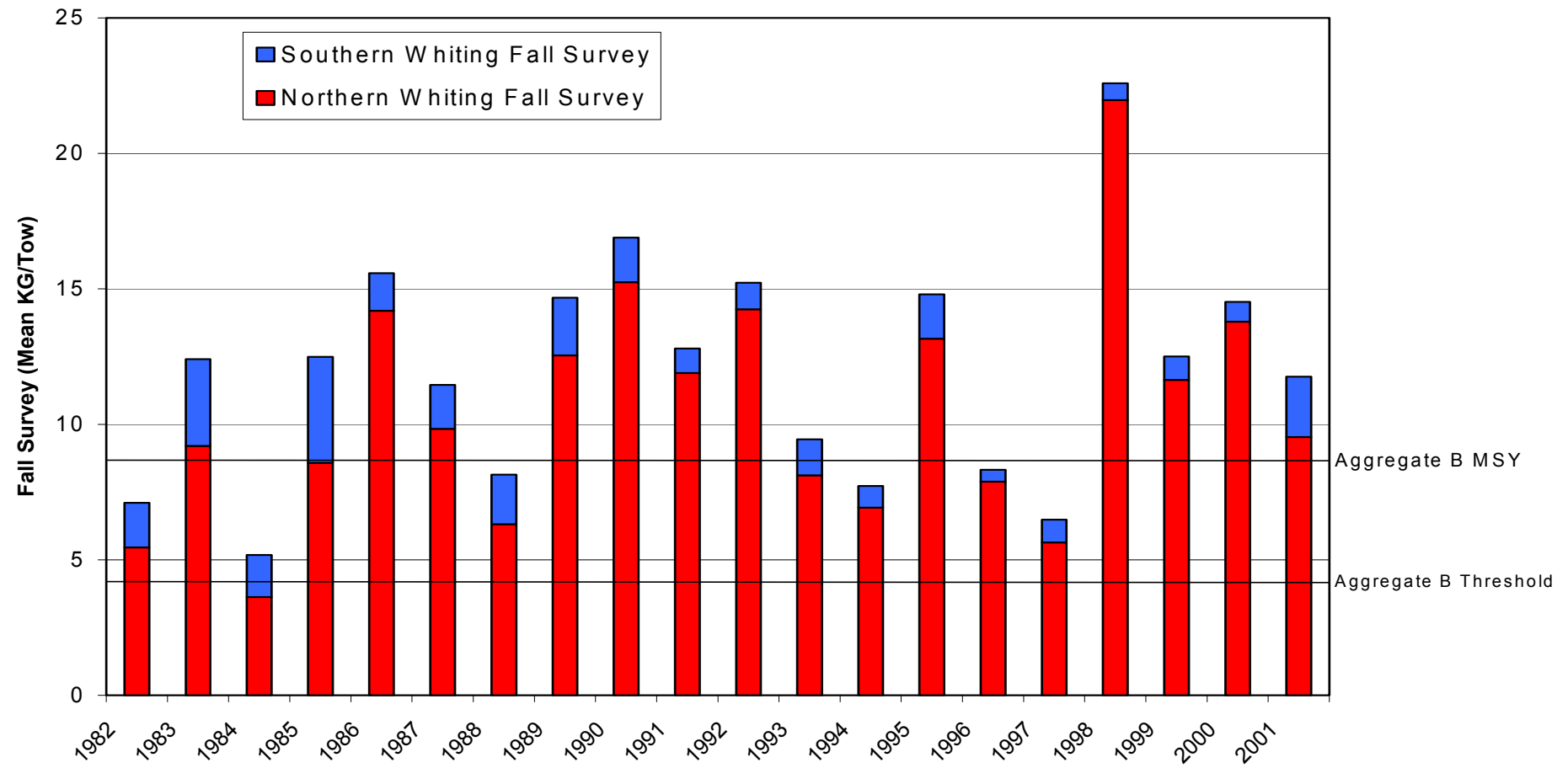
Autumn Survey

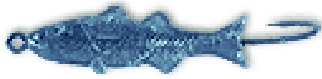




Whiting abundance

Survey Abundance of Whiting, 1982-2001



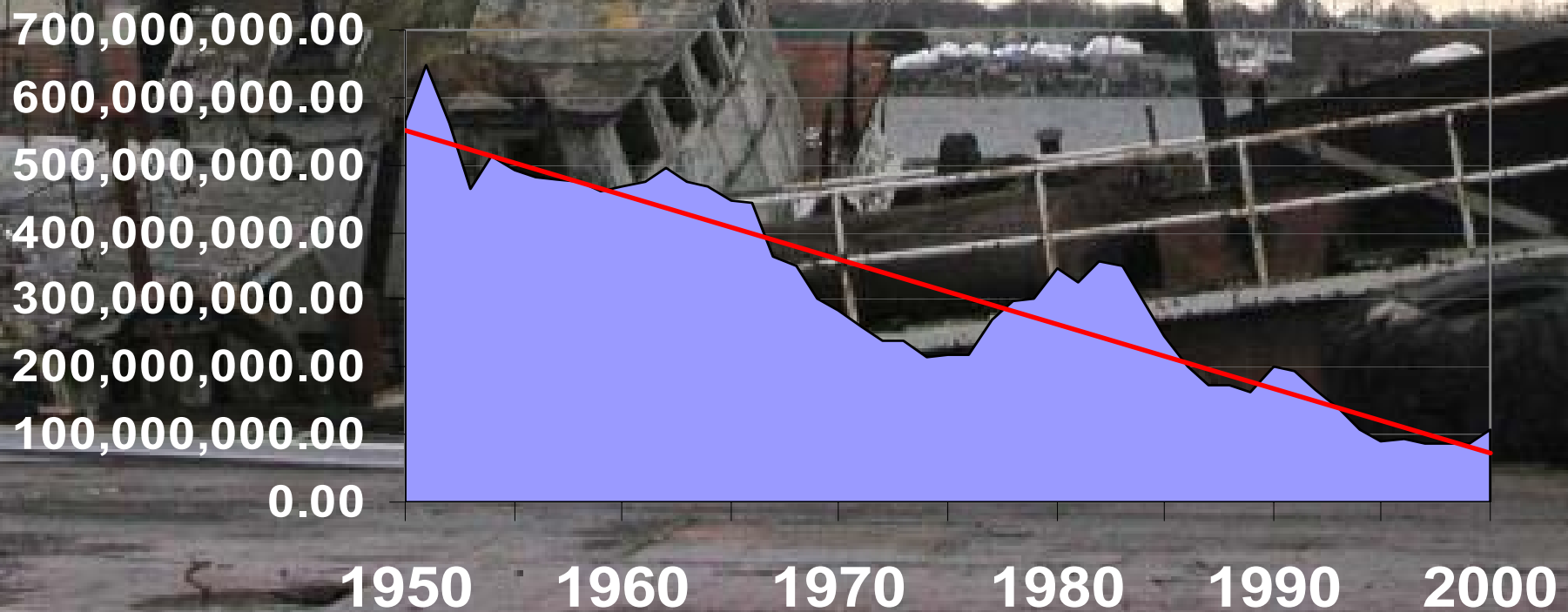


Net result?

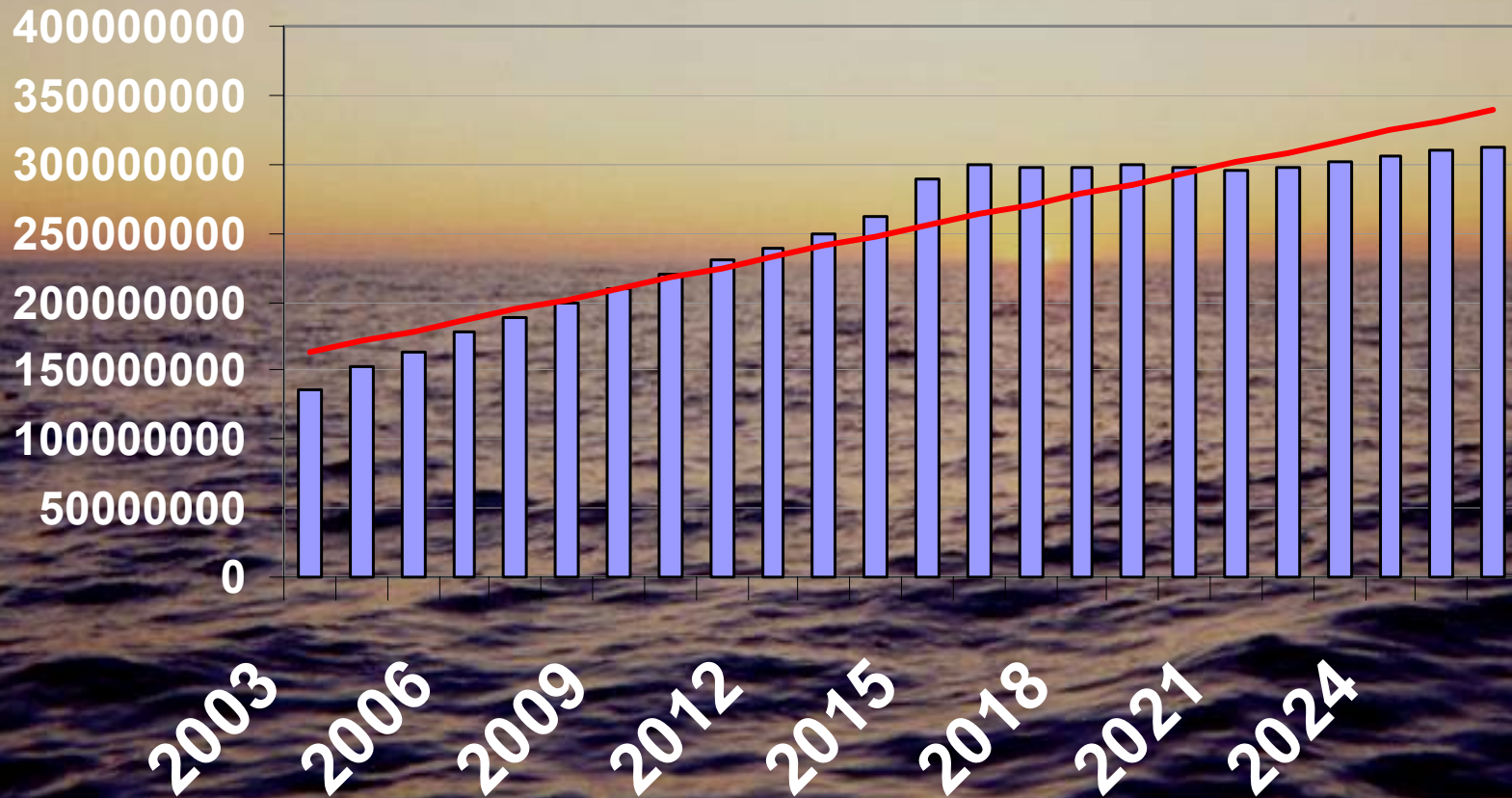
Things are looking up...

Predictions

Groundfish landings, 1950 - 2000



Predicted groundfish landings, 2003 - 2026





Evolving management

- From...stock-specific rebuilding
- To...integrated, multi-fishery management
- As stocks grow technical interactions will increase
 - Trade-offs
 - Preparedness

Emerging issues



Open-access

- Sea scallop day-boat fishery
 - Inaccurate self-reporting
 - Difficulty ascertaining actual effort
 - Constraining effort will have ripple effect

Emerging issues



Herring

- Effort reduction in inshore areas
 - Localized depletion
 - Forage species
 - Tuna, whales, cod, stripers
 - Lobster, mackerel

Emerging issues



EFH

Emerging issues

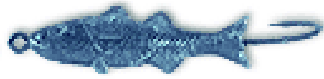
- EFH designations
 - Data levels (1 – 4)
 - Purpose of designation
- EFH protection
 - Integrated, multi-fishery protection of sensitive habitat
- High-res benthic maps
- Quantifying link btwn habitat and productivity



Dogfish

Emerging issues

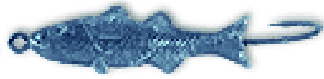
There is a strong desire amongst all NE fisherman, commercial and recreational, to harvest dogfish at exceedingly high levels



Generic

Data needs

- Food web: Geographic/seasonal information on predator-prey interactions
- Improved catch information
- Improved effort information



Generic

Data needs

- Non-fishing activities
 - All fluid discharge sites
 - All watersheds
 - Non-fluid disposal sites
 - Water transportation facilities and patterns
 - Concentrations of non-point source discharge
 - Locations of other activities that affect the marine environment
- Economic /social
 - Location of fishing communities
 - Geographic characterization of economic dependence on fishing activities (including non-consumptive uses)
 - Location of major support infrastructure
 - Market distribution system
 - Areas where stakeholders reside
 - Population areas



Specific

Data needs

- Habitat
 - High-res bathymetry and substrate data
 - Level 4
 - Fishing effort
- Biological
 - Spatially explicit target, by-product and bycatch
 - Low-frequency variability in physical environment
 - Improved fishing effort linkage across and within fisheries



Specific

Data needs

- Economic
 - Improved cost data
 - Spatially explicit fishing effort
 - Intra- and inter-fishery
 - Linkages from ocean to market
- Social
 - Need for non-economic social indicators



Specific

Data needs

- Cumulative effects
 - Focus on indicators
 - Develop assessment techniques
 - Alternative-specific impacts for management actions
- Models for management
 - Integrated
 - Formalized